

# Work Order ID 50850

July 31, 2009 8:35:11 AM



Page 1

Item ID: D205-634-041

Accept



Setup Start



Revision ID: D

Stop



Item Name: Replacement Skidtube

Start Date: 08/20/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 09/04/2009 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: MF Date: 09-08-04 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



Stop



| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Draw<br>Number | Draw<br>Rev. | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|

Draw Nbr

Revision Nbr

D2580

Rev D

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy D205-634 bluefile & type labels per PPP D205-634-041 CHG002

N/A

110

0.00



BENDING MACHINE - SKIDTUBES

CNC Bend 1

Memo

0.00

CNC Delta 100 Bender

1-Bend as per program D2580.C on CNC Bender and Folio FT009

2-Cut tubes as per Dwg. D2580

①

BE 09/08/13

*[Handwritten signature]*

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Work Order ID 50850

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Page 2

Item ID: D205-634-041

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Setup Start



Revision ID: D

Stop



Item Name: Replacement Skidtube

Start Date: 08/20/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 09/04/2009 Req'd Qty: 1.00

Customer:

Reference:

Run Start



Approvals: Process Plan: Date: Tooling: Date:

Stop



QC: Date: SPC (Y/N): Date:

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Draw<br>Number | Draw<br>Rev. | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|

120

0.00



Skidtubes

Memo

0.00

Skidtubes

1- Deburr ends

2- C'sink holes as per dwg without cutting fluid

3- Prepare tube for welding, remove alodine as required.

4- Scribe batch number insied aft end of tube.

1 BE 09/08/14

130

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

2) S 09/08/14



| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
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|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Work Order ID 50850

July 31, 2009 8:35:11 AM



Item ID: D205-634-041  
Revision ID: D  
Item Name: Replacement Skidtube

Accept



Setup Start  
Stop



Start Date: 08/20/2009 Start Qty: 1.00  
Required Date: 09/04/2009 Req'd Qty: 1.00



Cust Item ID:  
Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:  
QC: Date: SPC (Y/N): Date:

Run Start  
Stop



| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Draw<br>Number | Draw<br>Rev. | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|

140

0.00



Skidtubes

Skidtubes

Memo

0.00

1-Weld step D2576 as per Dwg. D2580 and QSI 004  
A/R□□□ Aluminum Rod *m110295*

*BE 09/08/14*

2-Prep per QSI 005 and weld crossbolt spacers D2579 as per Dwg. D2580, QSI 004.

For D2579 spacers, weld one side, pass 3/8" drill, weld other side, pass 3/8" drill  
A/R□□□ Aluminum Rod *m110295*

*BE 09/08/14*

3-Grind welds as per Dwg D2580 Grind flush ridge made from bending

4-Drill holes for wearplates using DT 8217 & DT8937 Open holes to 19/64",  
adjust stopper not to hit web. Debur

5-Counterbore crossbolt spacers to 7/16" ID x 1.0" deep as per Dwg D2580.  
Debur holes

*BE 09/08/14*

6-Drill pilot holes for aft cap using DT 8215 Open holes to 0.208". Debur

7-Drill pilot holes for Tow ring using DT8091, open to .640" and Debur

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

**Work Order ID 50850**

July 31, 2009 8:35:11 AM



Page 4

Item ID: D205-634-041

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Setup Start



Revision ID: D

Stop



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Start Date: 08/20/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 09/04/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop



| Sequence ID/<br>Work Center ID          | Operation<br>Description                                  | Set Up/<br>Run Hours           | Draw<br>Number | Draw<br>Rev. | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|---|---|--------------------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|
| 150<br><br>QC<br>Quality Control        | QC10- Inspect visual per QSI004- ground welds<br><br>Memo | 0.00<br>=> 508/08/17<br>0.00   |                |              |              |               |               |                  |                |
| 160<br><br>QC<br>Quality Control        | QC5- Inspect part completeness to step on W/O<br><br>Memo | 0.00<br>=> 508/08/17<br>0.00   |                |              |              |               |               |                  |                |
| 170<br><br>HandFinish<br>Hand Finishing | Pressure Wash per QSI005 4.3<br><br>Memo                  | 0.00<br>=> JH 09/08/24<br>0.00 |                |              |              |               |               |                  |                |

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
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|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries



**Work Order ID 50850**

July 31, 2009 8:35:11 AM

Page 5

Item ID: D205-634-041

Revision ID: D

Item Name: Replacement Skidtube

Start Date: 08/20/2009 Start Qty: 1.00

Required Date: 09/04/2009 Req'd Qty: 1.00

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

180



Powdercoat

Powder Coating

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

Memo

M112260

0.00

START TIME:

11:00am

OVEN TEMPERATURE:

320°F

FINISH TIME:

11:30am

JL 08/08/2009

1 0

190



QC

Quality Control

QC3- Inspect Part Finish

0.00

Memo

0.00

BL 09-08-25

D.

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
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|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

**Work Order ID 50850**

July 31, 2009 8:35:11 AM



Page 6

Item ID: D205-634-041

Accept



Setup Start



Revision ID: D

Stop



Item Name: Replacement Skidtube

Start Date: 08/20/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 09/04/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop



| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Draw<br>Number | Draw<br>Rev. | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|

200

0.00



HandFinish

Memo

0.00

Hand Finishing

1-Install inserts &amp; wearplates &amp; Gaskets as per Dwg. D2580. Use a drop of Sikaflex on insert holes before installing wearplates

A/R ☐ ☐ ☐ Sikaflex-291 112391 ☐ ☐ ☐Sikaflex expire date: 10/20

2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580

3-Inspect for foreign object per QSI 024

4-Install 2855 Aft Cap as per Dwg D2580 and seal Fwd Step &amp; Aft Cap with Sikaflex. Clean excess adhesive

A/R ☐ ☐ ☐ Sikaflex-291 112391 ☐ ☐ ☐Sikaflex expire date: 10/20

5-Wing Walk as per Dwg D2580 and QSI 005 4.4

Batch: 11112106

BR 09-08-25.

**Work Order ID 50850**

July 31, 2009 8:35:11 AM

Page 7

Item ID: D205-634-041

Accept

Setup Start

Revision ID: D

Stop

Item Name: Replacement Skidtube

Start Date: 08/20/2009 Start Qty: 1.00

Cust Item ID:

Required Date: 09/04/2009 Req'd Qty: 1.00

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

210

QC5- Inspect part completeness to step on W/O

0.00

QC

Memo

0.00

Quality Control

Inspect Aft Cap, Fwd Step and Wing Walk of work to Current Step Inspect for Foreign objects per QSI 024

⇒ 502/06/26

Ⓢ

/

220

Packaging

0.00

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPPD205-634-041

Location:

PPP Rev:

FPP 50716

19/9/01 (1)

230

QC21- Final Inspection - Work Order Release

0.00

QC

Memo

0.00

Quality Control

09/09/07  
mf 09-09-03

# Picklist Print

July 31, 2009 8:35:11 AM

Page 1

Work Order ID: 50850

Parent Item: D205-634-041RevD

Parent Item Name: Replacement Skidtube


Start Date: 08/20/2009

Required Date: 09/04/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/<br>Item Name  | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Remaining<br>Qty To Pick | Qty<br>Issued | Date<br>Issued | Status |
|--|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|
| D2580-1RevD  |                        | Manufactured  | No          |                     |                  | 110             | Each               | 7.0000         | 1.0000                   |               |                |        |
|  |                        |               |             |                     |                  |                 |                    |                |                          |               |                |        |
| 205 Skidtube bent detail   |                        |               |             |                     |                  |                 |                    |                |                          |               |                |        |

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

7

48616

1

50760

6

D2576-3RevG

Manufactured No

140

Each

165.0000

1.0000



Step (maching detail)

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

165

43504

62

46661

103

*\* 250761 1 BE 09/08/14*

*1 BE 09/08/14*

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Picklist Print

July 31, 2009 8:35:11 AM

Work Order ID: 50850



Parent Item: D205-634-041RevD



Parent Item Name: Replacement Skidtube

Start Date: 08/20/2009

Required Date: 09/04/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Remaining<br>Qty To Pick | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|
| D2579RevE                       |                        | Manufactured  | No          |                     |                  | 140             | Each               | 412.0000       | 20.0000                  |               |                |        |
|                                 |                        |               |             |                     |                  |                 |                    |                |                          |               |                |        |
| Crossbolt Spacer                |                        |               |             |                     |                  |                 |                    |                |                          |               |                |        |

Warehouse Loc Qty Loc Code

Location

Main Warehouse

|       |     |  |
|-------|-----|--|
| ST    | 412 |  |
| 43988 | 4   |  |
| 46434 | 4   |  |
| 46956 | 12  |  |
| 47797 | 338 |  |
| 48272 | 54  |  |

19, BE 09/08/14

D2855RevA

Manufactured No

200

Each

66.0000

1.0000



Cap

Warehouse Loc Qty Loc Code

Location

Main Warehouse

|                |    |  |
|----------------|----|--|
| FP6            | 52 |  |
| 50513          | 52 |  |
| Main Warehouse |    |  |
| ST             | 14 |  |
| 10360          | 2  |  |
| 35663          | 7  |  |
| 41340          | 1  |  |
| 42343          | 3  |  |
| 42806          | 2  |  |
| 50513 ✓        | -1 |  |

1 PL 09-08-25.

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries



# Picklist Print

Page 3

July 31, 2009 8:35:11 AM

Work Order ID: 50850



Parent Item: D205-634-041RevD



Parent Item Name: Replacement Skidtube

Start Date: 08/20/2009

Required Date: 09/04/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Remaining<br>Qty To Pick | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|

|        |  |           |    |  |  |     |      |           |        |  |  |  |
|--------|--|-----------|----|--|--|-----|------|-----------|--------|--|--|--|
| AN3-5A |  | Purchased | No |  |  | 200 | Each | 2,560.000 | 2.0000 |  |  |  |
|--------|--|-----------|----|--|--|-----|------|-----------|--------|--|--|--|



Bolt

| Warehouse | Loc Qty | Loc Code |
|-----------|---------|----------|
| Location  |         |          |

Main Warehouse

|    |      |  |
|----|------|--|
| ST | 2560 |  |
|----|------|--|

|        |     |  |
|--------|-----|--|
| 100188 | 246 |  |
|--------|-----|--|

|        |      |  |
|--------|------|--|
| 105057 | 2246 |  |
|--------|------|--|

|       |    |  |
|-------|----|--|
| 15205 | 68 |  |
|-------|----|--|

|            |  |           |    |  |  |     |      |           |        |  |  |  |
|------------|--|-----------|----|--|--|-----|------|-----------|--------|--|--|--|
| AN960JD10L |  | Purchased | No |  |  | 200 | Each | 6,911.000 | 2.0000 |  |  |  |
|------------|--|-----------|----|--|--|-----|------|-----------|--------|--|--|--|



Washer

| Warehouse | Loc Qty | Loc Code |
|-----------|---------|----------|
| Location  |         |          |

Main Warehouse

|    |      |  |
|----|------|--|
| ST | 6911 |  |
|----|------|--|

|        |    |  |
|--------|----|--|
| 101291 | 16 |  |
|--------|----|--|

|        |     |  |
|--------|-----|--|
| 104885 | 153 |  |
|--------|-----|--|

|        |     |  |
|--------|-----|--|
| 105793 | 236 |  |
|--------|-----|--|

|        |      |  |
|--------|------|--|
| 109632 | 1506 |  |
|--------|------|--|

|        |      |  |
|--------|------|--|
| 110985 | 5000 |  |
|--------|------|--|

2 BR 09-08-25

2 BR 09-08-25

July 31, 2009 8:35:11 AM

Shop Packet Print

Page 3

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Picklist Print

July 31, 2009 8:35:11 AM

Work Order ID: 50850



Parent Item: D205-634-041RevD



Parent Item Name: Replacement Skidtube

Start Date: 08/20/2009

Required Date: 09/04/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Remaining<br>Qty To Pick | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|
| *ALS7-1032-130                  |                        | Purchased     | No          |                     |                  | 200             | Each               | 3,706.000      | 50.0000                  |               |                |        |
|                                 |                        |               |             |                     |                  |                 |                    |                |                          |               |                |        |

Insert

Warehouse Loc Qty Loc Code

Location

Main Warehouse *M110511*

ST 3706

105855 16

108606 52

111529 1638

111779 2000

AN3C4A

Purchased

No

200

Each

2,071.000

50.0000



BOLT

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 2071

112082 121

112314 ✓ 1950

*50 BL 09-08-25.*

*50 BL 09-08-25.*

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                                |                                 |                |                           |                       |                          |
|------|------|----------------------------------|--------------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action<br>Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng           | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

# Picklist Print

July 31, 2009 8:35:11 AM

Work Order ID: 50850



Parent Item: D205-634-041RevD



Parent Item Name: Replacement Skidtube


Start Date: 08/20/2009

Required Date: 09/04/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/<br>Item Name   | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Remaining<br>Qty To Pick | Qty<br>Issued | Date<br>Issued | Status |
|---|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|
| AN960C10L<br><br>washer |                        | Purchased     | No          |                     |                  | 200             | Each               | 4,591.000      | 50.0000                  |               |                |        |

| <u>Warehouse</u> | <u>Loc Qty</u> | <u>Loc Code</u> |
|------------------|----------------|-----------------|
| <u>Location</u>  |                |                 |
| OFFSHORE         |                |                 |
| FG               | 100            |                 |
| 103585           | 100            |                 |
| Main Warehouse   |                |                 |
| ST               | 4491           |                 |
| 112116           | 4491           |                 |

50 BR 09-08-25.

D3566-13RevC

Manufactured No



Gasket

47.0000 1.0000



| <u>Warehouse</u> | <u>Loc Qty</u> | <u>Loc Code</u> |
|------------------|----------------|-----------------|
| <u>Location</u>  |                |                 |
| Main Warehouse   |                |                 |
| ST               | 47             |                 |
| 45717            | 1              |                 |
| 46889            | 5              |                 |
| 47435            | 7              |                 |
| 48166 ✓          | 18             |                 |
| 50265            | 16             |                 |

1 BR 09-08-25.

# Dart Aerospace Ltd

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                                |                                 |                |                           |                       |                          |
|------|------|----------------------------------|--------------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action<br>Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng           | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

# Picklist Print

July 31, 2009 8:35:11 AM

Work Order ID: 50850



Parent Item: D205-634-041RevD



Parent Item Name: Replacement Skidtube

Start Date: 08/20/2009

Required Date: 09/04/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Remaining<br>Qty To Pick | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|
| D3566-5RevC                     |                        | Manufactured  | No          |                     |                  | 200             | Each               | 22.0000        | 1.0000                   |               |                |        |
|                                 |                        |               |             |                     |                  |                 |                    |                |                          |               |                |        |
| Gasket                          |                        |               |             |                     |                  |                 |                    |                |                          |               |                |        |

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

36113

46186

47318

48167

22

1

1

1

19

1 BK 09-08-25

D3566-1RevC

Manufactured No



Gasket

200

Each

34.0000

2.0000



Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

46349

47434

48165

48557

50278

34

1

2

8

11

12

51259

2 BK 09-08-25

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries



# Picklist Print

Page 7

July 31, 2009 8:35:11 AM

Work Order ID: 50850



Parent Item: D205-634-041RevD



Parent Item Name: Replacement Skidtube

Start Date: 08/20/2009

Required Date: 09/04/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Remaining<br>Qty To Pick | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|

D3564-11RevD

Manufactured

No

200

Each

30.0000

1.0000



Wearshoe

## Warehouse

## Loc Qty

## Loc Code

### Location

Main Warehouse

ST

30

45823

1

47432

7

48553

12

50112 ✓

10

D3564-13RevD

Manufactured

No

200

Each

55.0000

1.0000



Wearshoe

## Warehouse

## Loc Qty

## Loc Code

### Location

Main Warehouse

FP17

35

48554

13

50270 ✓

22

Main Warehouse

ST

20

45409

3

46495

10

47867

7

BL 09-08-25

1 BL 09-08-25

July 31, 2009 8:35:11 AM

Shop Packet Print

Page 7

# Dart Aerospace Ltd

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Picklist Print

July 31, 2009 8:35:11 AM

Work Order ID: 50850



Parent Item: D205-634-041RevD



Parent Item Name: Replacement Skidtube

Start Date: 08/20/2009

Required Date: 09/04/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Remaining<br>Qty To Pick | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|
| D3564-9RevD<br>                 |                        | Manufactured  | No          |                     |                  | 200             | Each               | 17.0000        | 1.0000                   |               |                |        |
| Wearshoe                        |                        |               |             |                     |                  |                 |                    |                |                          |               |                |        |

| Warehouse      | Loc Qty | Loc Code |
|----------------|---------|----------|
| Location       |         |          |
| Main Warehouse | 51258   |          |
| ST             | 17      |          |
| 44659          | 1       |          |
| 45825          | 1       |          |
| 47316          | 4       |          |
| 48556          | 11      |          |

1 BK 09-08-25.

|                 |              |    |  |  |  |     |      |         |        |  |  |  |
|-----------------|--------------|----|--|--|--|-----|------|---------|--------|--|--|--|
| D3564-5RevD<br> | Manufactured | No |  |  |  | 200 | Each | 22.0000 | 1.0000 |  |  |  |
| Wearshoe        |              |    |  |  |  |     |      |         |        |  |  |  |

| Warehouse      | Loc Qty | Loc Code |
|----------------|---------|----------|
| Location       |         |          |
| OFFSHORE       | 51257   |          |
| FG             | 2       |          |
| 34806          | 2       |          |
| Main Warehouse |         |          |
| FP19           | 12      |          |
| 48555          | 12      |          |
| Main Warehouse |         |          |
| ST             | 8       |          |
| 45824          | 1       |          |
| 47433          | 1       |          |
| 48164          | 6       |          |

1 BK 09-08-25.

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

# Picklist Print

Page 9

July 31, 2009 8:35:11 AM

Work Order ID: 50850



Parent Item: D205-634-041RevD



Parent Item Name: Replacement Skidtube

Start Date: 08/20/2009

Required Date: 09/04/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Remaining<br>Qty To Pick | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|
| D2594-3RevC                     |                        | Manufactured  | No          |                     |                  | 200             | Each               | 894.0000       | 16.0000                  |               |                |        |
|                                 |                        |               |             |                     |                  |                 |                    |                |                          |               |                |        |
| O-Ring, 205 Skidtube            |                        |               |             |                     |                  |                 |                    |                |                          |               |                |        |

Warehouse                      Loc Qty                      Loc Code  
Location

Main Warehouse

ST                                      894

27168                                  44

29908 ✓                                850

|                    |  |              |    |  |  |     |      |          |         |  |  |  |
|--------------------|--|--------------|----|--|--|-----|------|----------|---------|--|--|--|
| D2594-1RevC        |  | Manufactured | No |  |  | 200 | Each | 700.0000 | 16.0000 |  |  |  |
|                    |  |              |    |  |  |     |      |          |         |  |  |  |
| Plug, 205 Skidtube |  |              |    |  |  |     |      |          |         |  |  |  |

Warehouse                      Loc Qty                      Loc Code  
Location

Main Warehouse

ST                                      700

42221                                  16

42807                                  92

43884                                  87

46435                                  3

47251 ✓                                502

16 BX 09-08-25

16 BX 09-08-25

July 31, 2009 8:35:11 AM

Shop Packet Print

Page 9

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries



|                               |                                |  |                        |
|-------------------------------|--------------------------------|--|------------------------|
| DESIGN<br><i>[Signature]</i>  | DRAWN BY<br><i>RH</i>          | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA   |                        |
| CHECKED<br><i>[Signature]</i> | APPROVED<br><i>[Signature]</i> | DRAWING NO.<br>D2580                                       | REV. D<br>SHEET 1 OF 3 |
| DATE<br>07.02.27              |                                | TITLE<br>205 SKIDTUBE ASSEMBLY                             | SCALE<br>NTS           |
| A                             | 96.09.16                       | NEW ISSUE  |                        |
| B                             | 96.12.02                       | AS MANUFACTURED  |                        |
| C                             | 98.08.26                       | REDRAWN, INCLUDED DEO 9094/9097                            |                        |
| D                             | 07.02.27                       | CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124/9183 |                        |

**RELEASED**  
07-06-28 *[Signature]*

*457854  
258054  
10-80-50*

| QTY<br>-041 | QTY<br>-045 | Part Number   | Description       |
|-------------|-------------|---|-------------------|
| X           |             | D2580-041   | SKIDTUBE ASSEMBLY |
|             | X           | D2580-045   | SKIDTUBE ASSEMBLY |
|             |             |   |                   |
| 1           | 1           | D2500-1-190   | EXTRUSION         |
| 1           | 1           | D2576-3   | STEP              |
| 20          | 24          | D2579   | CROSS BOLT SPACER |
| 16          | 16          | D2594-1   | PLUG              |
| 16          | 16          | D2594-3   | O-RING            |
| 1           | 1           | D2596   | 205 WEB           |
| 1           | 1           | D2855   | AFT CAP           |
| 1           | 1           | D3564-5   | WEARSHOE          |
| 1           | 1           | D3564-9   | WEARSHOE          |
| 1           | 1           | D3564-11  | WEARSHOE          |
| 1           | 1           | D3564-13  | WEARSHOE          |
| 2           | 2           | D3566-1   | GASKET            |
| 1           | 1           | D3566-5   | GASKET            |
| 1           | 1           | D3566-13  | GASKET            |
|             |             |   |                   |
| 50          | 50          | ALS7-1032-130<br>or AKS7-1032-130<br>or AKS4-1032-130<br>or AELS-1032-130 | INSERT            |
| 50          | 50          | AN3C4A  | BOLT              |
| 2           | 2           | AN3-5A  | BOLT              |
| 50          | 50          | AN960C10L   | WASHER            |
| 2           | 2           | AN960JD10L  | WASHER            |

**GENERAL NOTES:**

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) ALL DIMENSIONS ARE IN INCHES
- 3) INSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 5) USE DART DRILL TEMPLATE TD2577-205 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION D-D (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241/-291.
- 6) WELDING TO BE DONE PER DART QSI 004.
- 7) FINISH:  
SEE NOTES ON  
PAGE 2 FOR D2580-041 AND  
PAGE 3 FOR D2580-045
- 8) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES).

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| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

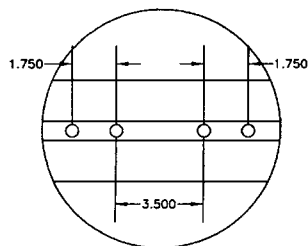
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

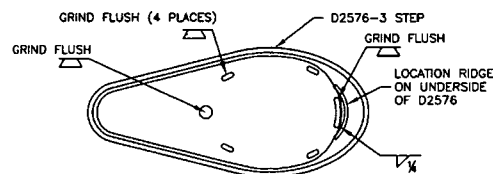
**NOTE:** Date & initial all entries



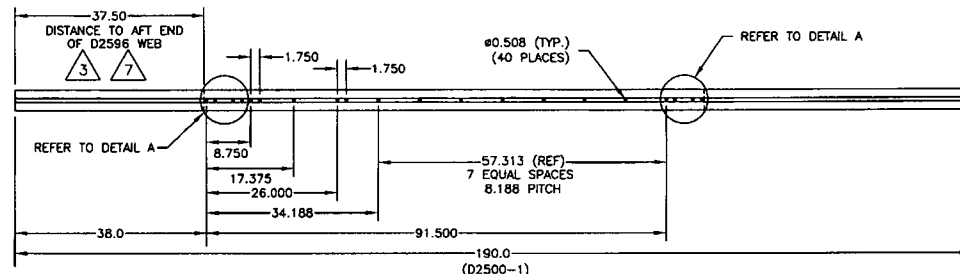
**DETAIL A**  
SCALE 5:24



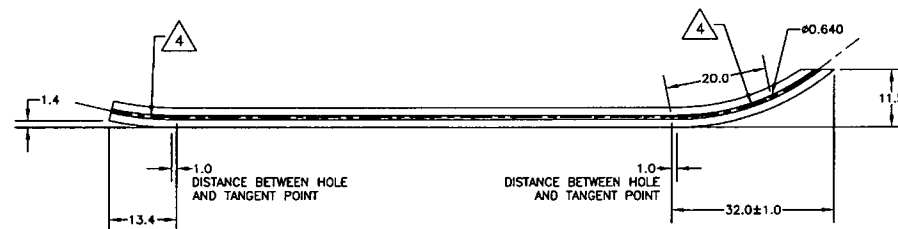
**DETAIL B**  
SCALE 5:24



**D2580-1 DRILLING DETAIL**

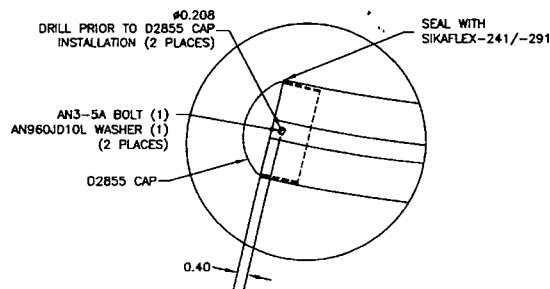


**D2580-1 BENDING AND CUTTING DETAIL**

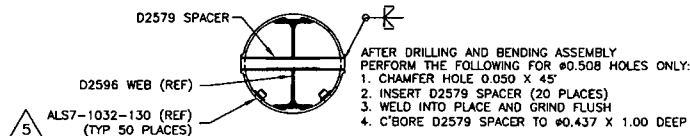


**RELEASED**  
07.06.28

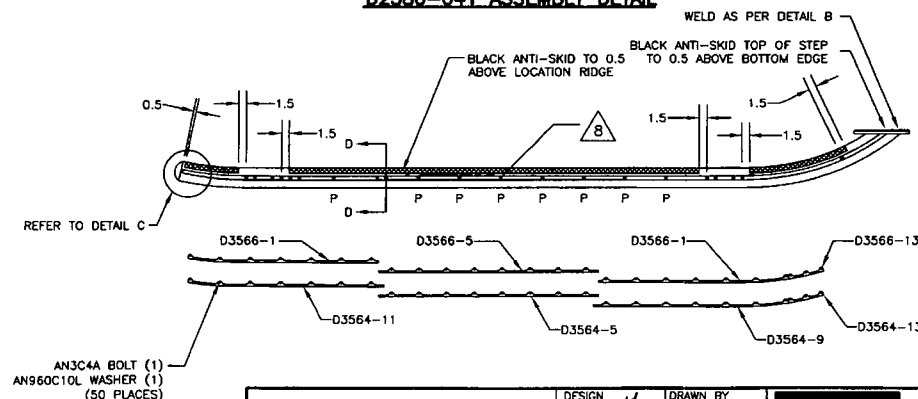
**DETAIL C**  
SCALE 5:24



**SECTION D-D**  
SCALE 5:24



**D2580-041 ASSEMBLY DETAIL**



**D2580-041 NOTES**

- i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB  
POWDER COAT ASSEMBLY GLOSS WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3  
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4

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| CHECKED  | APPROVED              | DRAWING NO. | REV. D  |
|          |                       | D2580       | SHEET 2 OF 3                                      |
| DATE     | TITLE                 | SCALE       |   |
| 07.02.27 | 205 SKIDTUBE ASSEMBLY | 1:24        |   |

50850

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                                |                                 |                |                           |                       |                          |
|------|------|----------------------------------|--------------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action<br>Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng           | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

RELEASED  
07-06-28

Diagram illustrating the grinding locations on a propeller cross-section:

- GRIND FLUSH (4 PLACES)
- GRIND FLUSH
- D2576-3 STEP
- GRIND FLUSH
- LOCATION RIDGE ON UNDERSIDE OF D2576

0.208

DRILL PRIOR TO D2855 CAP  
INSTALLATION (2 PLACES)

AN3-SA BOLT (1)  
AN960JID10L WASHER (1)  
(2 PLACES)

D2855 CAP

0.40

SEAL WITH  
SIKAFLEX-241/-291

SEE NOTE ii)

5

D2579 SPACER

D2596 WEB (REF)

AL57-1032-130 (REF)  
(TYP 50 PLACES)

AFTER DRILLING AND BENDING PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:

1. CHAMFER HOLE 0.050 X 45°
2. INSERT D2579 SPACER (20 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. C-BORE D2579 SPACER TO Ø0.437 X 1.00 DEEP

- i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB  
POWDER COAT ENTIRE ASSEMBLY GREEN (REF. 4.3.5.8) PER DART QSI 005 4.3  
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4
- ii) IT IS ACCEPTABLE TO GRIND A RELIEF IN THE D2855 AFT CAP TO PREVENT INTERFERENCE  
WITH THE SPACER AT THIS LOCATION

37.50  
DISTANCE TO AFT END  
OF D2596 WEB

3  
7

1.750 1.750

0.508 (TYP.)  
(40 PLACES)

REFER TO DETAIL E

REFER TO DETAIL A

8.750

17.375

26.000

34.188

57.313 (REF)  
7 EQUAL SPACES  
8.188 PITCH

38.0

91.500

190.0  
(D2500-1)

(MAKE FROM D2380-1 DRILLING DETAIL)

5.985  
1.4  
5.338 (REF)  
51.340  
39.580  
5.915  
3.630 (REF)  
Ø0.508 (8 PLACES)  
20.0  
Ø0.640  
11.0  
1.0  
32.0 ± 1.0  
1.0  
13.4  
DISTANCE BETWEEN HOLE AND TANGENT POINT  
DISTANCE BETWEEN HOLE AND TANGENT POINT  
4  
4

WELD AS PER DETAIL F

BLACK ANTI-SKID TO 0.5 ABOVE LOCATION RIDGE

BLACK ANTI-SKID TOP OF STEP TO 0.5 ABOVE BOTTOM EDGE

0.5

1.5

1.5

H

NO C'BORE NO PLUG

REFER TO DETAIL G

8

1.5

1.5

1.5

P

P

P

P

P

P

P

NO C'BORE NO PLUG

D3566-1

D3566-5

D3566-1

D3566-13

D3564-11

D3564-5

D3564-9

D3564-13

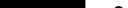
AN3C4A BOLT (1)

AN960C10L WASHER (1)

(50 PLACES)

|        |          |  |
|--------|----------|--|
| DESIGN | DRAWN BY |  |
|--------|----------|--|

50850

|  |          |          |  |             |              |
|--|----------|----------|--|-------------|--------------|
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|  | CHECKED  | APPROVED |  | DRAWING NO. | REV. D       |
|  | DATE     |          |  | D2580       | SHEET 3 OF 3 |
|  | 07.02.27 |          |  | TITLE       | SCALE        |
|  |          |          | 205 SKIDTUBE ASSEMBLY  | 1:24        |              |

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
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|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

NO. 206

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name: Barclay Elliott  
Job number: 50844  
Part number: D205 634 041  
Description: 205 skid tube  
Welding Process: Tig[☒] Mig[ ]  
Base material: Aluminium  
Current: AC[☒] DC[ ]

TEST REQUIREMENTS AND RESULTS

Visual:

pass[☒] fail[ ]

Penetration:

pass[☒] fail[ ]

UNACCEPTABLE

Cracks:

pass[ ] fail[ ]

Undercut:

pass[ ] fail[ ]

Pin holes:

pass[☒] fail[ ]

Overlap (cold lap)

pass[ ] fail[ ]

Porosity (surface):

pass[ ] fail[ ]

Coloration:

pass[☒] fail[ ]

Qualifier P. D. W.

Date of Test Coupon 09.08.13

Welder Barclay Elliott

Date of Test Coupon 09.08.13

The above named individual is qualified in accordance with AWS D17.1.2001 to weld